



IDWeek 2022 Poster # 1035: The Microbiological Pattern And Outcome Of Community Acquired Brain Abscess A Retrospective Study from Karachi, Pakistan



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1. Objectives

To assess the microbiological spectrum and clinical outcome of patients admitted with community acquired brain abscess

2. Introduction

- Brain abscess is a potentially life-threatening infection
- Streptococci** and **Bacteroides** are considered the predominant causative organisms in community acquired brain abscesses
- Recommended empirical therapy is therefore ceftriaxone and metronidazole
- In recent times a drastic change in the caustic organism has been witnessed

3. Material & Methods

Study Design:

- Single-center retrospective study
- Study period: 2018-2022
- Included **44 Community Acquired Brain abscess patients** who were admitted at the Neurosurgery Unit of **Shaheed Mohtarma Benazir Bhutto Institute of Trauma, Karachi, Pakistan**
- Excluded: Patients having prior history of neurosurgical intervention

Statistical Analysis: Median and interquartile ranges presented the non-normal distribution data of continuous variables. Numbers and percentages were used for categorical data.

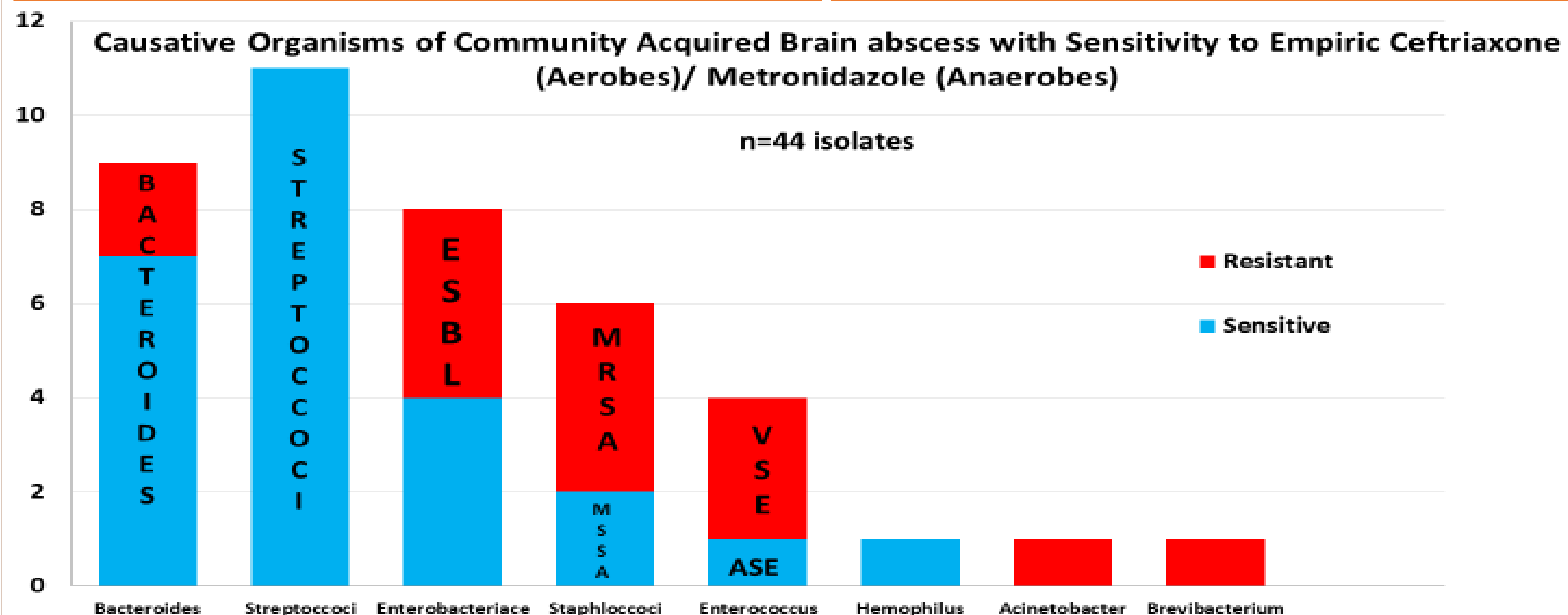
4. Results

Table 1: Characteristics Of 44 Patients With Community Acquired Brain Abscess

Variables	n=44 (100%)
Age in years (Min-Max)	19.5(0.5-65)
Male	31(70.5%)
Predisposing factor	
Otogenic	25 (56.8%)
Head Trauma	6 (13.6%)
Hematogenous spread	1 (2.27%)
Site of Brain Abscess	
Frontal	16 (36.3%)
Occipital	13 (29.5%)
Positive pus culture	30 (68.1%)
Polymicrobial growth	11 (25%)

Table 2: Management and outcome of 44 patients with Community Acquired Brain Abscess

Variables	n=44 (100%)
Abscess drained	41(93.2%)
Abscess Excised	30 (68.2%)
Mean days from admission to abscess drainage (in days)	2
Mean duration of appropriate therapy (in days)	32 days
Resolution of abscess on CT	34 (77.2%)
Mean days in which abscess resolved on CT	36 (10-59) days
Median Hospital Stays in days	31(19-51) days
Mortality	3(6.81%)



5. Discussion

Table 3: Comparison with Other Studies

Parameters	Other	This Study
Triad of fever, headache, fits	13%	2.27%
Resistant organism	Post neurosurgical procedure	Community
Polymicrobial growth	27%	25%
Effectiveness of Antimicrobial regimen		
Ceftriaxone alone	71%	30%
Ceftriaxone/Metronidazole	83%	50%
Ceftriaxone/Metronidazole/Vancomycin	91.3%	76.6%
Meropenem/Vancomycin	90%	86.6%
Mortality	13%	6.8%

6. Conclusion

Microbiological spectrum of community acquired brain abscess is changing. Ceftriaxone/ Metronidazole may no longer be appropriate empirical therapy of choice. Meropenem and vancomycin would be a safer empirical option

7. References

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8. Acknowledgement

The authors thank the entire dedicated team of Shaheed Mohtarma Benazir Bhutto Institute of Trauma

